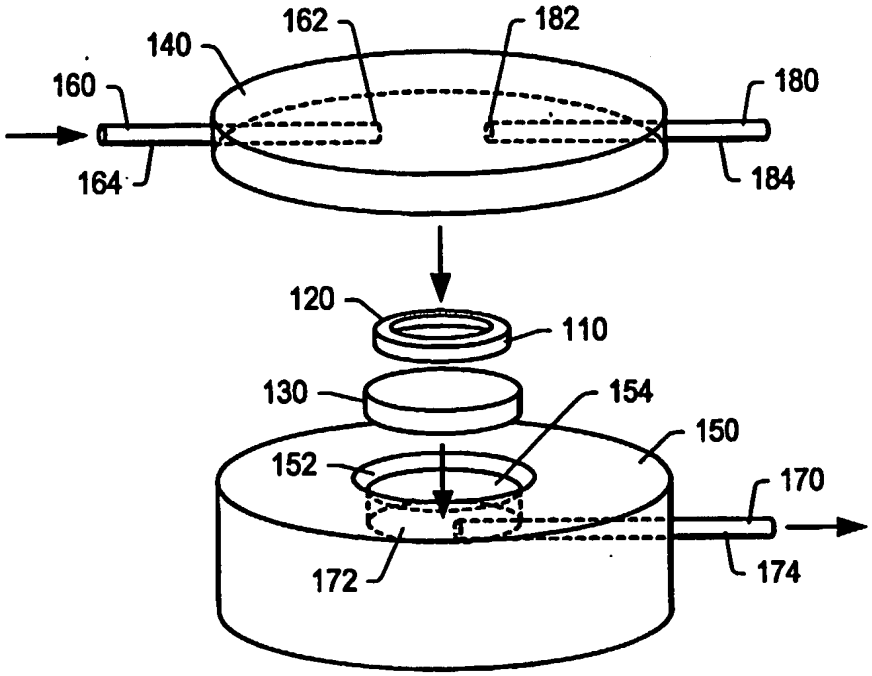

162
182
140
160
180
164
184
120
110
130
154
150
152
170
172
174

FIG. 1

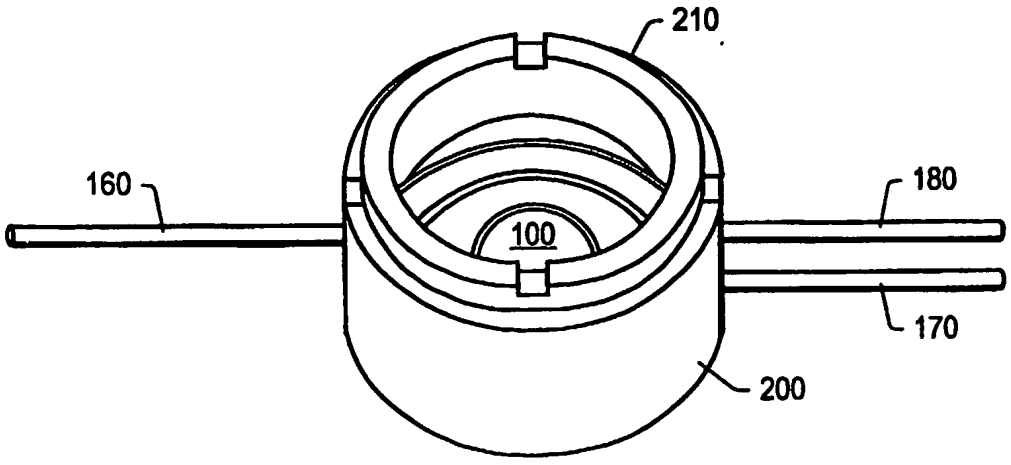

210
160
180
100
170
200

FIG. 2

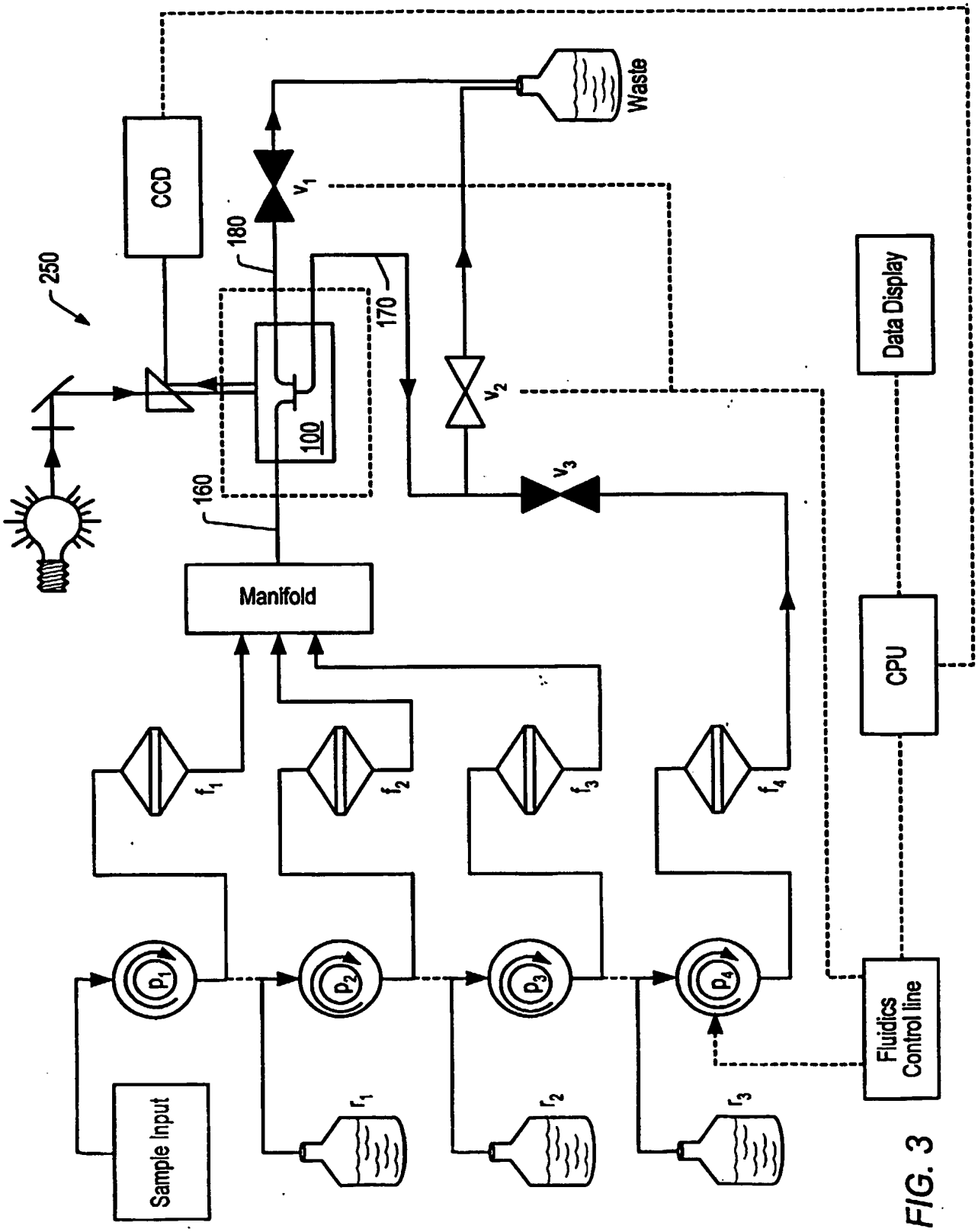

Waste
CCD
v_1
180
250
170
Data Display
v_2
100
v_3
160
Manifold
CPU
f_1
f_2
f_3
f_4
P_1
P_2
P_3
P_4
Fluidics Control line
Sample Input
r_1
r_2
r_3

FIG. 3

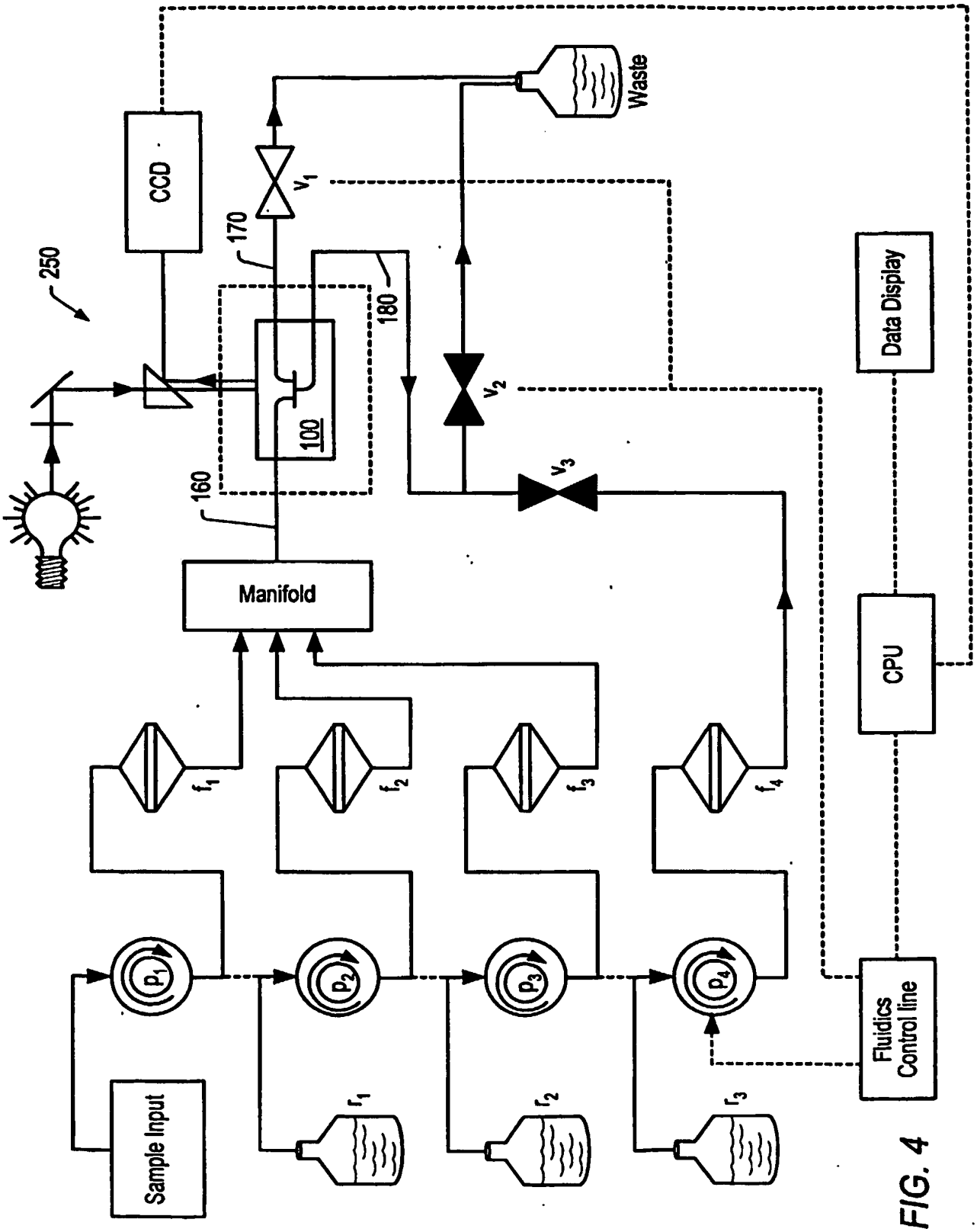

Waste
CCD
v_1
170
250
180
Data Display
v_2
100
v_3
160
Manifold
CPU
f_1
f_2
f_3
f_4
P_1
P_2
P_3
P_4
Fluidics Control line
Sample Input
r_1
r_2
r_3

FIG. 4

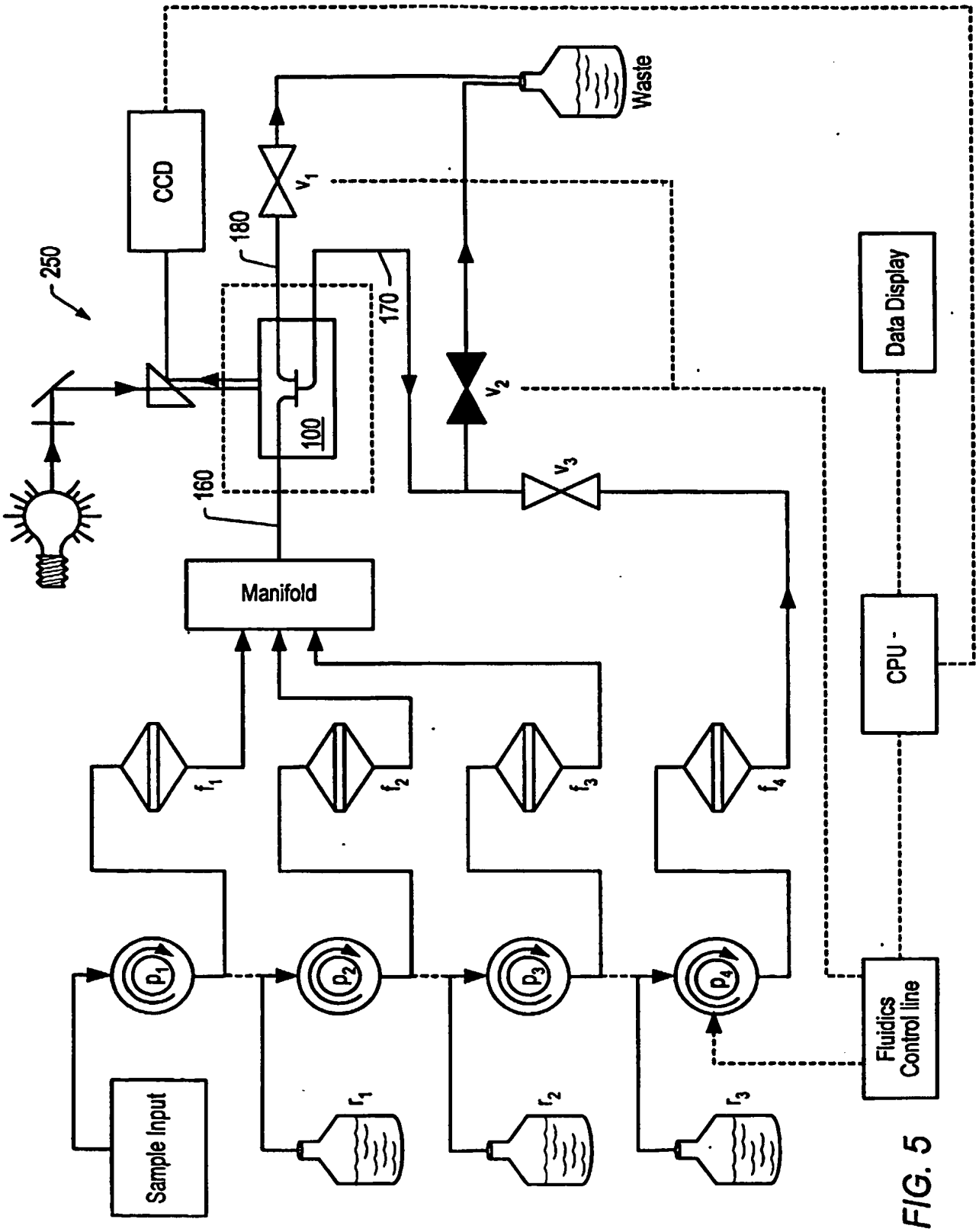

Waste
CCD
v_1
180
250
170
Data Display
v_2
100
v_3
160
Manifold
CPU -
f_1
f_2
f_3
f_4
P_1
P_2
P_3
P_4
Fluidics Control line
Sample Input
r_1
r_2
r_3

FIG. 5

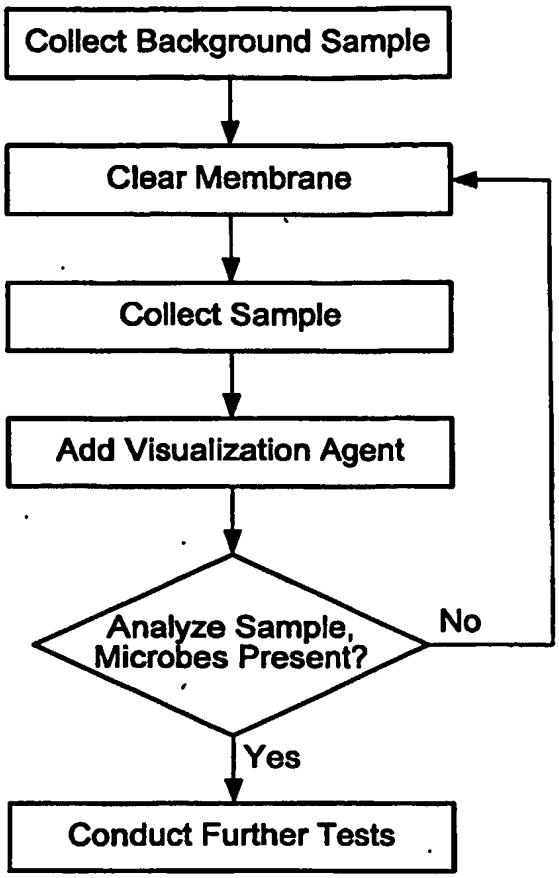

Collect Background Sample
Clear Membrane
Collect Sample
Add Visualization Agent
Analyze Sample, Microbes Present?
No
Yes
Conduct Further Tests

FIG. 6

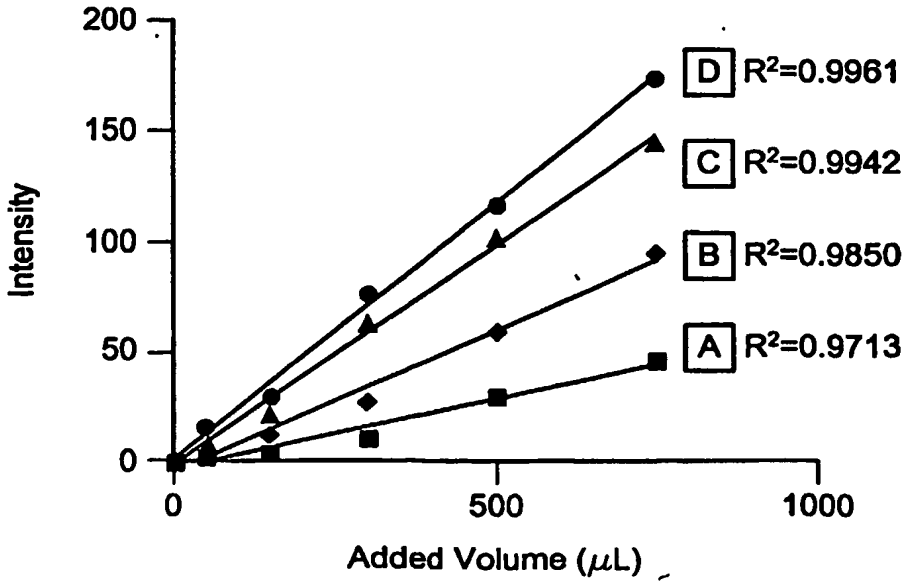

200
150
100
50
0
Intensity
0
500
1000
Added Volume (μL)
D R²=0.9961
C R²=0.9942
B R²=0.9850
A R²=0.9713

FIG. 7

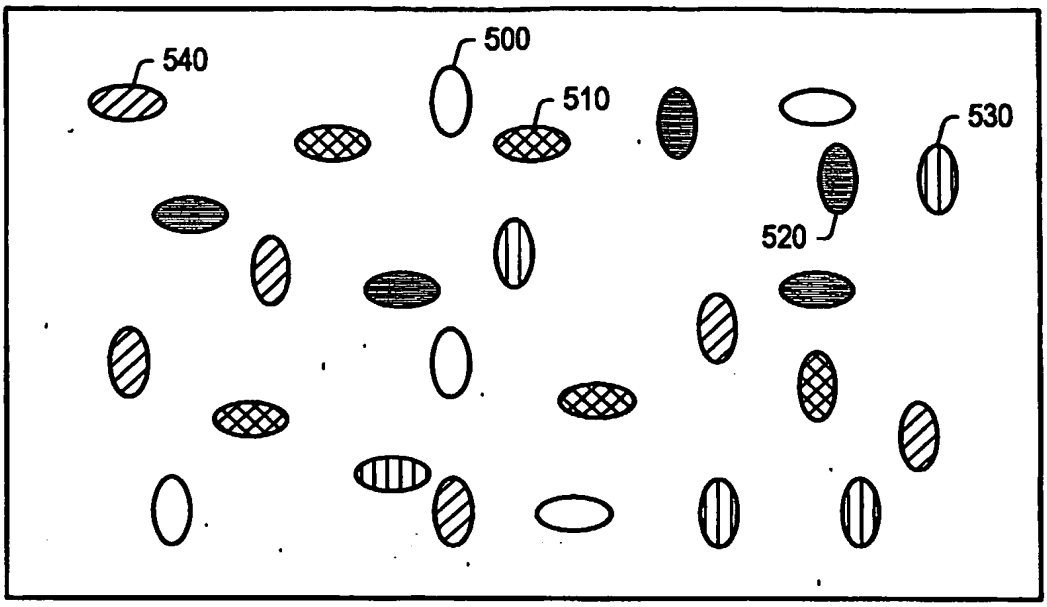


FIG. 8A

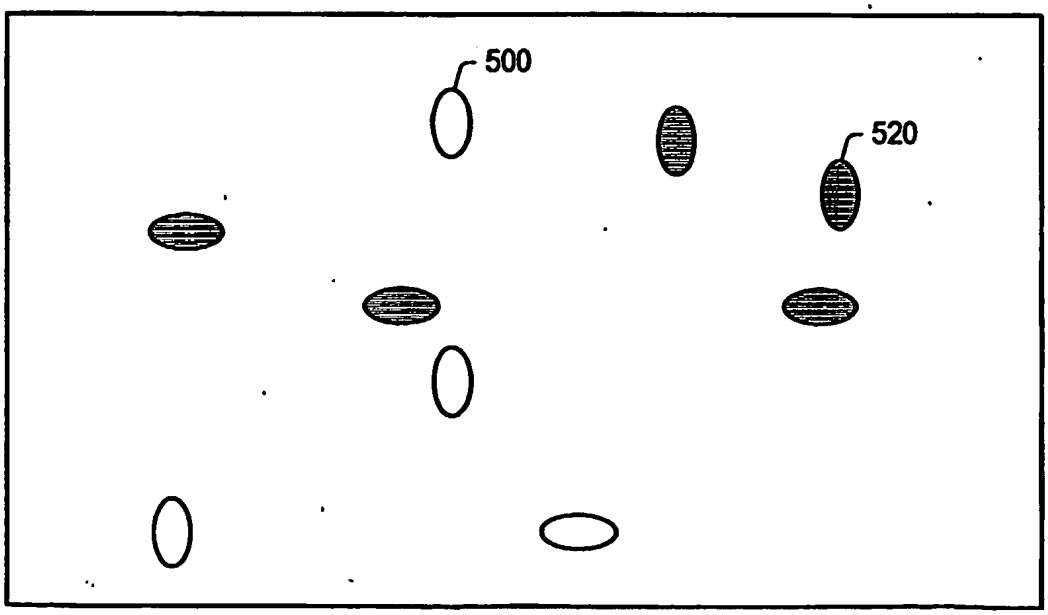


FIG. 8B

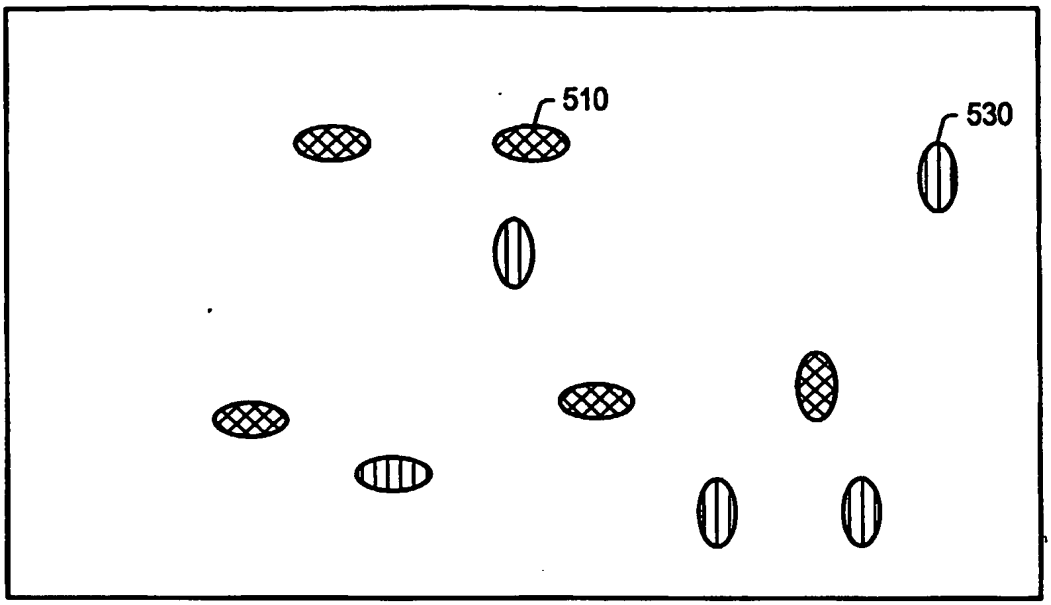


FIG. 8C

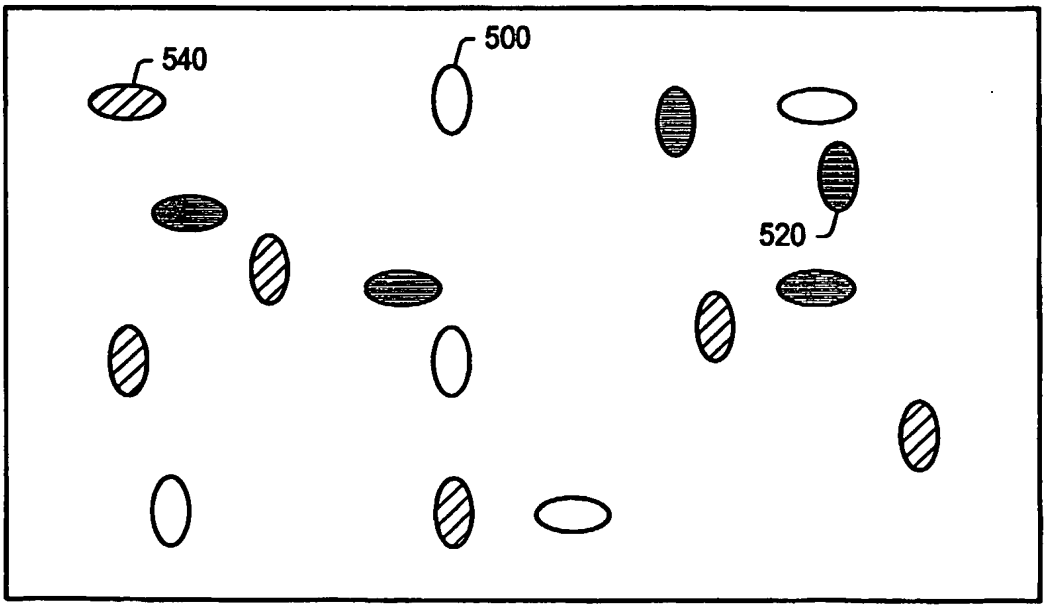


FIG. 8D

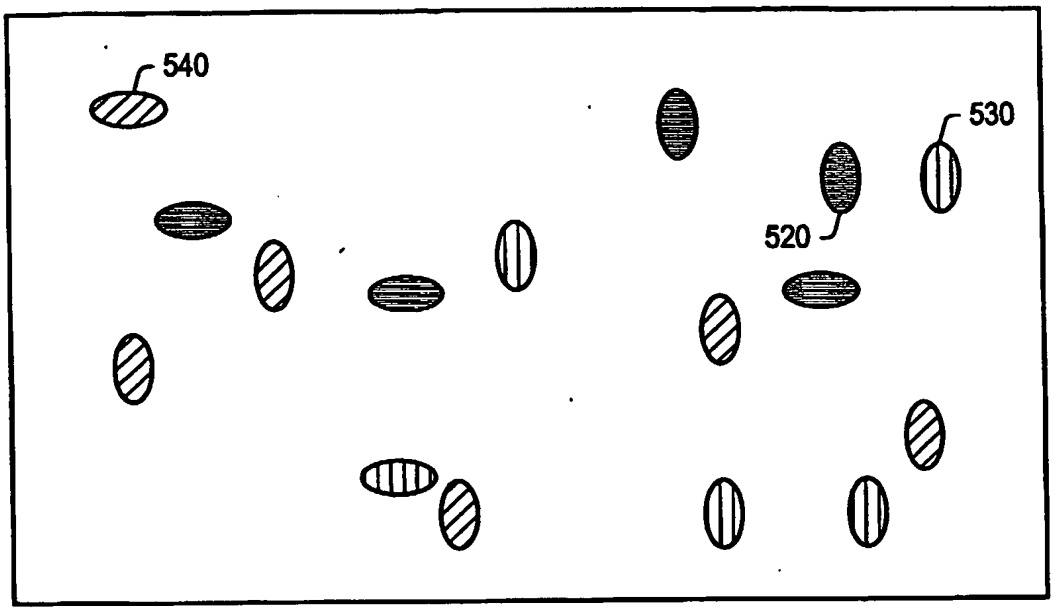


FIG. 8E

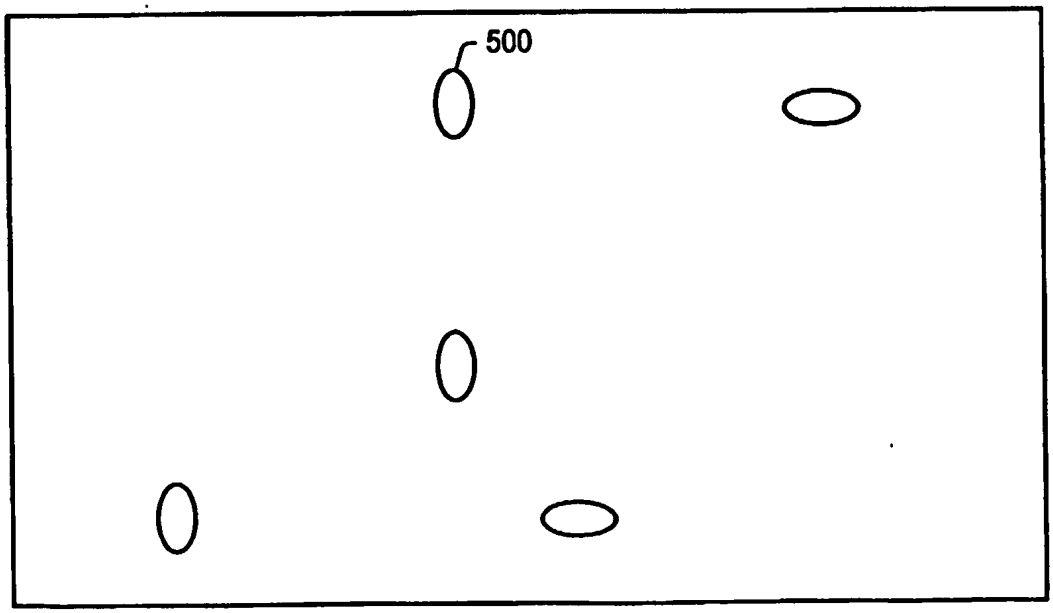


FIG. 8F

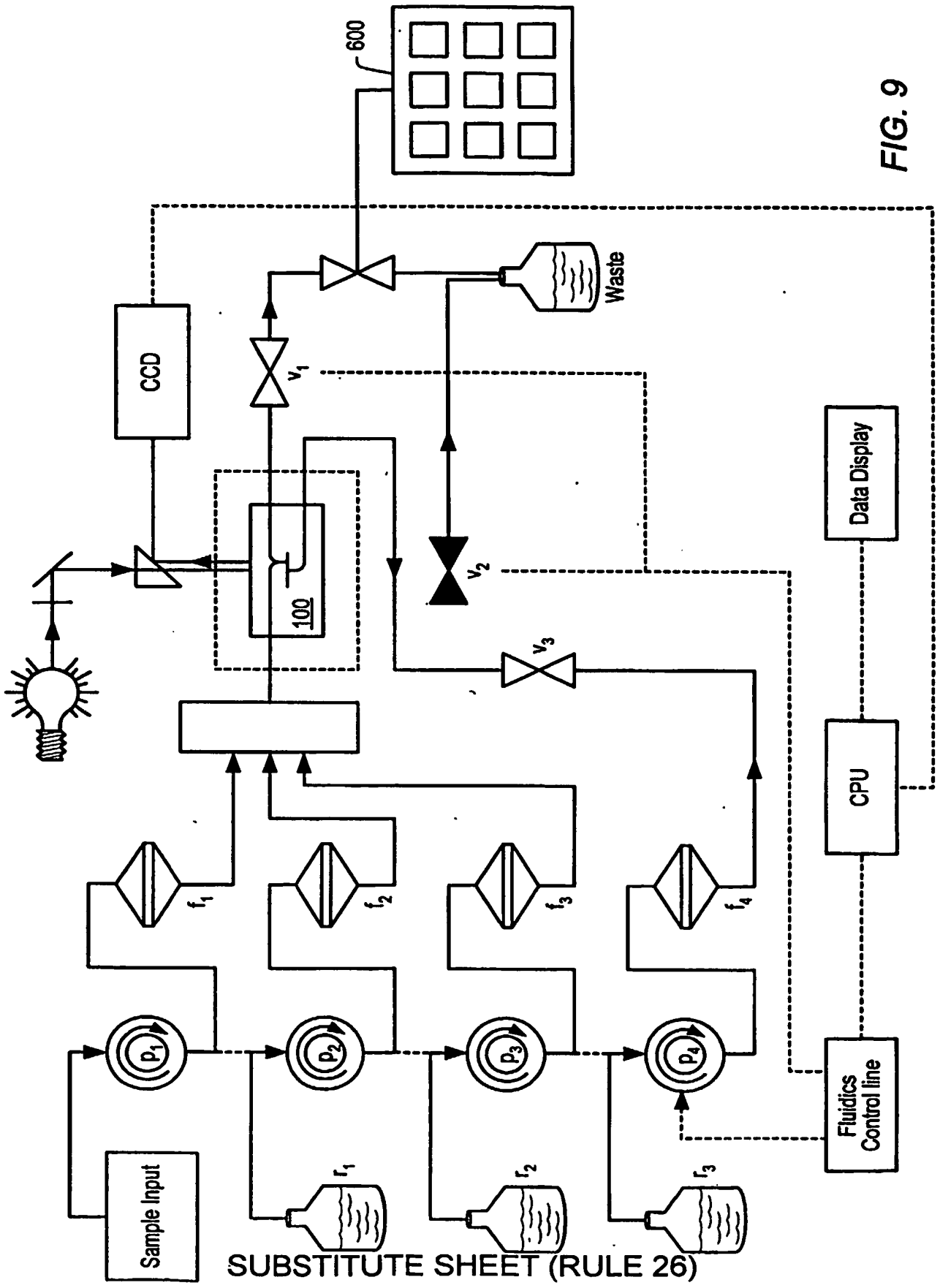

600
Waste
CCD
v_1
v_2
v_3
100
Data Display
CPU
f_1
f_2
f_3
f_4
P_1
P_2
P_3
P_4
Fluidics Control line
Sample Input
r_1
r_2
r_3

FIG. 9

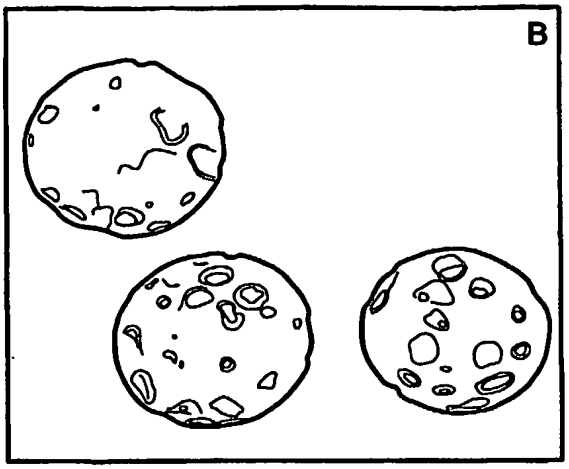


FIG. 10

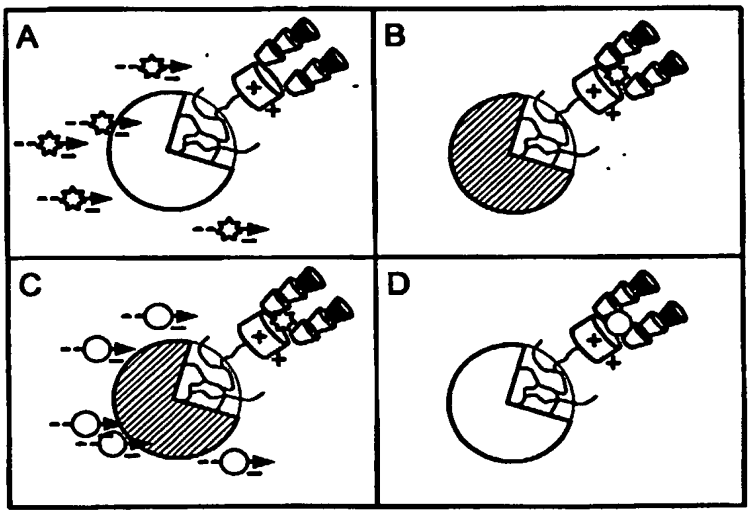


FIG. 11

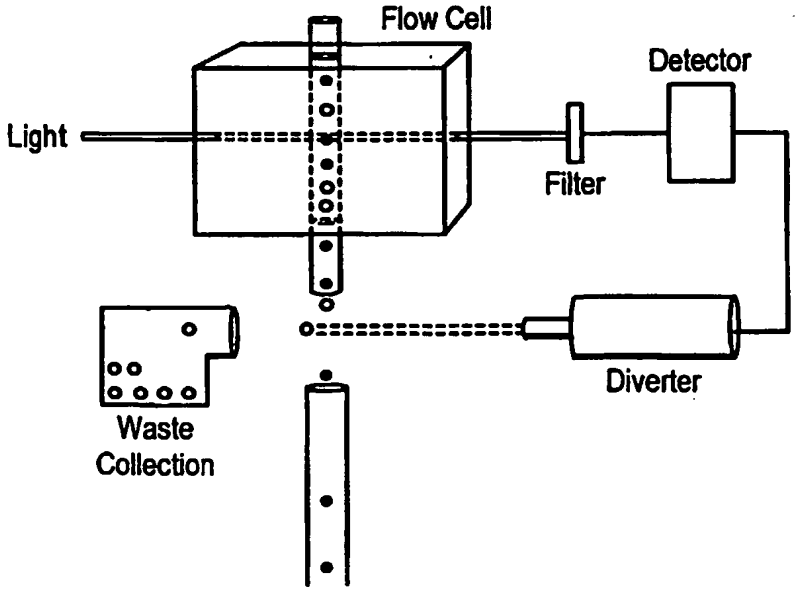


FIG. 12